UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,688	03/30/2001	Koji Naito	018987-032	8787

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EXAMINER
THOMPSON, JAMES A

ART UNIT	PAPER NUMBER
2625	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)
Office Action Summary		09/820,688	NAITO ET AL.
		Examiner	**Art Unit**
		James A. Thompson	2625

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 May 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,3-7,9-13,15-20 and 22-28</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,3-7,9-13,15-20 and 22-28</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>30 March 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 03 May 2007, with respect to the rejections of the claims under 35

USC § 103(a) have been fully considered and are persuasive. Therefore, the rejection has been

withdrawn. However, upon further consideration, new grounds of rejection are made in view of newly

discovered prior art.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the art to which said subject
> matter pertains. Patentability shall not be negatived by the manner in which the invention was
> made.

3.   **Claims 1, 3, 5-7, 9, 11-13, 15, 17-20, 22 and 24-28 are rejected under 35 U.S.C. 103(a) as**

being unpatentable over Evans (US Patent 6,577,746 B1) in view of Ikenoue (US Patent 5,987,127).

Regarding claims 1, 7, 13, 19, 20, 26, 27 and 28: Evans discloses an image forming apparatus

(figure 1 of Evans) equipped with an image processing apparatus (figure 1 of Evans) that processes

inputted first image data so as to output second image data, the image forming apparatus forming an

image according to the second image data (column 3, lines 13-28 of Evans), the image processing

apparatus comprising: a detecting unit (figure 1(18) of Evans) that detects all pieces of additional

information (pristine picture, watermark and watermark ID data) that are embedded in the first image data

(column 2, lines 12-14 of Evans); a storage unit (figure 1(16) of Evans – *or other inherently present*

computer memory needed to store information for processing (see column 4, lines 20-24 of Evans)) that

stores the detected pieces of additional information in association with location information thereof

(column 2, lines 25-30 and lines 61-65 of Evans); an analyzing unit (figure 1(20(portion))) of Evans –

embodied software stored in computer-readable memory and executed by the processor, which performs

corresponding analyzing functions) that analyzes the detected pieces of additional information and judges

whether any of the detected pieces of additional information includes predetermined information that is

updatable (column 3, lines 29-33 and lines 47-51 of Evans – *if watermark detected in document, and*

there is a newer version of the watermark at the server, watermarked image is updated); and an

embedding unit (figure 1(20(portion)) of Evans – *embodied software stored in computer-readable memory and executed by the processor, which performs corresponding embedding functions*) that (1) updates, when a judgement result of the analyzing unit is affirmative, the predetermined information included in the piece of additional information (column 3, lines 29-33 and lines 47-51 of Evans – *if watermark detected in document, and there is a newer version of the watermark at the server, watermarked image is updated*), and embeds the piece of additional information including the updated predetermined information into the first image data at a location where the piece of additional information is originally embedded, by referring to the stored location information (figure 1(30,30'); column 2, lines 61-65; and column 3, lines 14-20 of Evans), wherein the first image data embedded with the predetermined information and/or the new piece of additional information is outputted as the second image data (column 3, lines 23-28 of Evans).

Evans does not disclose expressly that said embedding unit (2) embeds, when a judgement result of the analyzing unit is negative, a new piece of additional information including updated information into the first image data at a location that does not overlap locations where the detected pieces of additional information are embedded, by referring to the stored location information, the updated information being equivalent to the predetermined information.

Ikenoue discloses embedding a new piece of additional information including updated information into the first image data at a location that does not overlap locations where the detected pieces of additional information are embedded (figure 2(1st Generation) and column 6, lines 33-47 of Ikenoue – *new information added where there is no information for each new generation copy code when each generation of a copy is made; must be in new location since older generation codes already exist at their respective locations, or there is no copy code if copy is first generation*). Since both the updated information taught by Ikenoue and the predetermined information taught by Evans are watermarks containing particular information, the updated information taught by Ikenoue is equivalent to the predetermined information taught by Evans.

Evans and Ikenoue are combinable because they are from the same field of endeavor, namely the detection and updating of watermark data in document copying. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add any necessary predetermined information at locations where is not presently any additional information, as taught by Ikenoue. The motivation for doing so would have been to be able to manage the number of copies generated and prevent illegal copying, through the use of updated generational watermark data (column 2, lines 23-32 of Ikenoue). The predetermined information in Ikenoue is not updatable and Evans cites some conditions in which updating

information at the location of the watermark would be undesirable (column 2, lines 48-53; and column 3, lines 29-30 and lines 52-57 of Evans). Therefore, it would have been obvious to combine Ikenoue with Evans to obtain the invention as specified in claims 1, 7, 13, 19, 20, 26, 27 and 28.

Further regarding claim 1: The apparatus of claim 1 is fully embodied in the apparatus of claim 7.

Further regarding claim 13: The apparatus of claim 7 performs the method recited in claim 13.

Further regarding claim 19: The apparatus of claim 7 performs the method recited in claim 19.

Further regarding claim 20: The apparatus of claim 7 executes the steps of the computer program recited in claim 20.

Further regarding claim 26: The apparatus of claim 26 is fully embodied in the apparatus of claim 1.

Further regarding claim 27: The method of claim 27 is fully embodied in the method of claim 13.

Further regarding claim 28: The computer-readable medium containing a program of claim 28 is embodied in the computer-readable medium containing a program of claim 20.

Regarding claims 3, 9, 15 and 22: Evans discloses that when the analyzing unit analyzes the detected pieces of additional information, the analyzing unit employs a predetermined embedding format used by the embedding unit (column 2, lines 36-39 and lines 47-53 of Evans – *watermark and watermark ID in set format embedded in image of particular format*).

Further regarding claims 5, 11, 17 and 24: Ikenoue discloses that, when the analyzing unit finds that any of the detected pieces of additional information is unanalyzable (column 13, lines 60-66 of Ikenoue), the analyzing unit judges that the piece of additional information does not include the predetermined information (column 14, lines 4-8 of Ikenoue). Blocks of additional data are analyzed to determine whether or not said blocks of additional data are invalid (column 13, lines 60-66 of Ikenoue). If said block of additional data are invalid, but said invalidity is not due to forgery, said invalid blocks are deleted (column 14, lines 4-8 of Ikenoue). Thus, said invalid blocks clearly do not have said predetermined information.

Further regarding claims 6, 12, 18 and 25: Ikenoue discloses that the predetermined information includes information about a date when the image data is processed (column 16, lines 21-22 and lines 33-34 of Ikenoue).

4.   **Claims 4, 10, 16 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans (US Patent 6,577,746 B1) in view of Ikenoue (US Patent 5,987,127) and Davis (US Patent 3,760,159).**

Further regarding claims 4, 10, 16 and 23: Ikenoue discloses a warning unit (figure 13(20) of Ikenoue) that issues, when the additional data is determined to be secret (column 19, lines 60-65 of Ikenoue) and the proper confirmation data is not entered (column 20, lines 3-4 of Ikenoue), a warning to the effect that the copying of the document would be illegal (column 20, lines 5-9 of Ikenoue).

Ikenoue further discloses using the analyzing unit to find if any of the detected pieces of additional information are unanalyzable (column 13, lines 60-66 of Ikenoue).

Evans in view of Ikenoue does not disclose expressly that said warning unit issues, when the analyzing unit finds that any of the detected pieces of additional data is unanalyzable, a warning to the effect that the piece of additional information is unanalyzable.

Davis discloses issuing a warning to the effect that a valid parity does not exist (column 6, lines 16-20 of Davis) in the digital input data (column 5, lines 64-68 of Davis).

Evans in view of Ikenoue is combinable with Davis because they are from similar problem solving areas, namely the verification of digital information. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to display a warning if the digital data cannot be read properly, as taught by Davis, and is therefore unanalyzable, as taught by Ikenoue. The motivation for doing so would have been to give the operator a visual notification that an error has occurred (column 6, lines 19-20 of Davis). Therefore, it would have been obvious to combine Davis with Evans in view of Ikenoue to obtain the invention as specified in claims 4, 10, 16 and 23.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

    a.   Kondo et al., US Patent 6,215,421 B1, Patented 10 April 2001, Filed 23 November 1999.

    b.   Mercier, US Patent 6,865,747 B1, Patented 08 March 2005, Filed 31 March 2000, Provisional Application Filed 01 April 1999.

    c.   Marconcini et al., US Patent 6,834,110 B1, Patented 21 December 2004, Filed 10 December 1999.

    d.   Yoshida et al., US Patent 7,171,021 B2, Patented 30 January 2007, Filed 14 March 2005, Division of Application Filed 15 November 1999.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David

K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this

application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained

from either Private PAIR or Public PAIR. Status information for unpublished applications is available

through Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer

Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR

CANADA) or 571-272-1000.

<div style="text-align: right;">

James A. Thompson
Examiner
Technology Division 2625

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JAT
27 July 2007

DAVID MOORE
SUPERVISORY PATENT EXAMINER
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